



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/085,925 05/28/98 TAWIL

C 103-945

EXAMINER

VU, H

ART UNIT

PAPER NUMBER

2733

DATE MAILED:

11/15/99

LM02/1115
RUSSELL D CULBERTSON
1250 CAPITAL OF TEXAS HIGHWAY S
BUILDING ONE - SUITE 360
AUSTIN TX 78746

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Art Unit: 2733

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a signal processing arrangement having a first input connected to a first switch and a second input connected to a second switch as claimed in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 U.S.C. § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to teach a signal processing arrangement having a first input connected to a first switch and a second input connected to a second switch as claimed in claim 1.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2733

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites the limitation "the signal stream junction" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 6, 8, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagoshi (USP 5,541,963).

Nakagoshi teaches an apparatus (receiving apparatus of figure 1) comprising a first input (2A) and second input (2B), a first switch (2A), a second switch (2B), a data stream junction (5) connected to the first switched output and the second switched output and having a single junction output connected to a signal processing arrangement (3), and a controller (6).

Claim Rejections - 35 U.S.C. § 103

Art Unit: 2733

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 4-5, 7, 11-12, 14-15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagoshi (USP 5,541,963) in view of Karasawa (USP 5,204,981).

Regarding claims 4 and 11, Nakagoshi differs from the claim in that Nakagoshi does not teach that the signal processing arrangement has a full rate tuner and down converter, forward error correction decoder and a multiplex/format decoder. However, such components of a receiver is considered old and well known in the art for the purpose of improving signal reception as evidenced by Karasawa. See figure 6. Thus, it would have been obvious to one skill in the art at the time the invention was made to apply Karasawa's teaching of using a full rate tuner and down converter,

Art Unit: 2733

forward error correction decoder and a multiplex/format decoder in Nakagoshi's receiver with the motivation being to improve signal receptions.

Regarding claims 5 and 12, Nakagoshi differs from the claim in that Nakagoshi does not teach that an impedance matching amplifier. However, such component of a receiver is considered old and well known in the art for the purpose of improving signal reception as evidenced by Karasawa. See amplifier 24 in figure 6. Thus, it would have been obvious to one skill in the art at the time the invention was made to apply Karasawa's teaching of using amplifier in Nakagoshi's receiver with the motivation being to improve signal receptions.

Regarding claim 7, 14-15 and 19-20, Nakagoshi differs from the claim in that Nakagoshi does not teach that the both inputs receive signals in the same frequency band having a plurality of carrier frequencies. However, such feature is considered old and well known in the art as evidenced by Karasawa. See col. 9, lines 24-25. It is clear to one skilled in the art that the L-band (1.5 GHz) would contains a plurality of carrier frequencies. Thus, it would have been obvious to one skill in the art at the time the invention was made to apply Karasawa's teaching of using a same frequency band (L-band) for both inputs in Nakagoshi's receiver with the motivation being to utilize diversity communication techniques and to minimize errors.

10. Claims 2-3, 9-10 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2733

11.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-5403 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D. Vu whose telephone number is (703) 308-6602. The examiner can normally be reached on Tuesday - Friday from 8:00 a.m. to 5:30 p.m. The examiner can also be reached on alternate Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703) 305-4729.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.



**HUY D. VU
PRIMARY EXAMINER**